

IN THE CLAIMS:

1. (Currently Amended) A multi-layer magnetic part, comprising:

a composite sheet which is constituted by a central magnetic pattern that is formed by drying ~~obtained by applying~~ a magnetic body paste applied to a substrate and peeling the dried magnetic body paste from the substrate, a dielectric pattern that is formed so
5 as to surround said central ~~rendering the center and periphery thereof~~ a magnetic pattern by drying, and by applying a nonmagnetic body paste applied to said substrate and peeling the dried pattern to a substrate rendering a part thereof except the center and periphery a dielectric pattern comprising a nonmagnetic body paste from the substrate, and a peripheral magnetic pattern that is formed so as to surround said dielectric pattern by drying a magnetic body paste
10 applied to said substrate and peeling the dried magnetic body paste from the substrate;

a primary winding or secondary winding, or both such primary and secondary windings, provided on one face of the dielectric pattern and around the center;

a primary winding or secondary winding, or both such primary and secondary windings, provided on the other face of the dielectric pattern and around the center; and

15 a pair of magnetic sheets which are obtained by applying a magnetic body paste to a substrate and drying the paste and which hold the composite sheet and the primary and secondary windings from both sides and contact one another via the magnetic pattern.

2. (Currently Amended) The multi-layer magnetic part according to claim 1, wherein the composite sheet the center and periphery of which are a magnetic pattern and a part of which except the center and periphery is a dielectric: ~~pattern comprising a~~

~~nonmagnetic body~~ is inserted between the magnetic sheet and the primary or secondary
5 winding.

3. (Previously Presented) The multi-layer magnetic part according to claim 1,
wherein the composite sheet is stacked in a plurality of layers; and

through-holes connecting respectively a plurality of primary windings and a
plurality of secondary windings located with the dielectric pattern of the composite sheets
5 interposed therebetween are provided in the composite sheets.

4. (Previously Presented) The multi-layer magnetic part according to claim 1,
wherein the film thickness of the magnetic pattern and the film thickness of the dielectric
pattern of the composite sheet are equal.

5. (Original) A method of fabricating the multi-layer magnetic part according to
5 any of claims 1 to 5, comprising the steps of:

creating the magnetic sheet by applying a magnetic body paste to a substrate
and drying the paste;

creating the composite sheet separately by applying a nonmagnetic body paste
to a substrate in the form of the dielectric pattern and applying a magnetic body paste to the
10 substrate in the form of the magnetic pattern and drying the pastes;

creating the primary and secondary windings by applying a conductor paste to
the composite sheet or the magnetic sheet and drying the paste; and

peeling the magnetic sheet and the composite sheet thus obtained from the
substrate and stacking the magnetic sheet and composite sheet and pressurizing same to
15 produce a stacked body, and firing the stacked body.

6. (New) A multi-layer magnetic part, comprising:

a composite sheet which is constituted by a central magnetic pattern, a dielectric pattern that is formed so as to surround said central magnetic pattern, and a peripheral magnetic pattern that is formed so as to surround said dielectric pattern;

5 a primary winding or secondary winding, or both such primary and secondary windings, are provided on one face of the dielectric pattern and around the center magnetic pattern;

a primary winding or secondary winding, or both such primary and secondary windings, are provided on the other face of the dielectric pattern and around the center
10 magnetic pattern; and

a pair of magnetic sheets are formed to sandwich said composite sheet, and to contact each other via said central magnetic pattern and said peripheral magnetic pattern, wherein the composite sheet only has through holes to provide an electrical connection with one or more of the primary and secondary windings.

7. (New) The multi-layer magnetic part of Claim 6 wherein the peripheral magnetic pattern has a rectangular configuration to surround the dielectric pattern and primary and secondary windings as a result of contact with the pair of magnetic sheets.

8. (New) The multi-layer magnetic part of Claim 6 wherein the composite sheet has a thickness of 50 μm .

9. (New) The multi-layer magnetic part of Claim 8 wherein the pair of magnetic sheets have respective thicknesses of 100 μm .

10. (New) A multi-layer laminated transformer unit of a compact configuration comprising:

a plurality of composite sheets having a magnetic pattern and a dielectric pattern of equal film thicknesses on each composite sheet including a center magnetic pattern and a peripheral magnetic pattern that extends about the entire periphery of the dielectric pattern, the dielectric pattern surrounds the center magnetic pattern and separates the center magnetic pattern from the peripheral magnetic pattern, the plurality of composite sheets have a flat continuous surface;

a primary winding pattern;

a secondary winding pattern, wherein composite sheets adjacent the primary winding pattern and adjacent the secondary winding pattern only have through-holes to interrupt the flat continuous surface of the adjacent composite sheets to permit electrical connection to the primary winding pattern and the secondary winding pattern; and

a pair of magnetic sheets, one on a top of the plurality of composite sheets and one on a bottom of the plurality of composite sheets are pressed and adhered to the plurality of composite sheets to form the multi-layer laminated transformer unit wherein the center magnetic patterns form a transformer core in magnetic contact with the pair of magnetic sheets and the peripheral magnetic patterns form an outer magnetic path in contact with the pair of magnetic sheets to provide an improved magnetic coupling coefficient.

11. (New) The multi-layer laminated transformer unit of Claim 10 wherein the pair of magnetic sheets have thicknesses equal to the composite sheets.

12. (New) The multi-layer laminated transformer unit of Claim 10 wherein the center magnetic pattern is circular and the peripheral magnetic pattern is rectangular.

13. (New) The multi-layer laminated transformer unit of Claim 10 wherein each of the plurality of composite sheets have a thickness of 50 μ m.

14. (New) The multi-layer laminated transformer unit of Claim 13 wherein each of the pair of magnetic sheets have respective thicknesses of 100 μ m.